9-27-04

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Okay to enter WPL

1. (canceled)

2. (previously presented) A process as claimed in claim 10, characterized in that said regeneration is carried out in a filter-reactor and in that the process further comprises mixing additional regeneration gas during the regeneration-filtration stage, in the filter-reactor.

3. (previously presented) A process as claimed in claim 10, characterized in that said regeneration gas comprises hydrogen sulfide and/or a hydrocarbon.

4. (previously presented) A process as claimed in claim 10, characterized in that the gases from the regeneration-filtration stage are cooled.

5. (original) A process as claimed in claim 4, characterized in that the cooled gases are sent to a Claus plant.

6. (previously presented) A process as claimed in claim 10, characterized in that the regenerated absorbent from the regeneration-filtration stage is mixed with a carrier gas, then sent to a storage unit.

7. (previously presented) A process as claimed in claim 10, characterized in that the regenerated absorbent is mixed with a carrier gas, then sent to a desulfurization zone.

8. (previously presented) A process as claimed in claim 10, characterized in that regeneration is carried out in the presence of a catalyst.

9. (original) A process as claimed in claim 8, characterized in that the catalyst used for said regeneration stage comprises copper oxide and/or cerium oxide.

10. (previously presented) A process for regeneration of a used absorbent from a desulfurization zone or from the desulfurization of any gas containing sulfur oxides, said regeneration being carried out simultaneously with filtering of said absorbent in a reducing atmosphere, characterized in that it comprises carrying out partial combustion of a regeneration gas upstream from said regeneration and in that the products of said partial combustion are mixed with the used absorbent prior to the regeneration-filtration stage, and in that the used absorbent is fractionated, prior to being mixed with the regeneration gas, into at least two fractions, some of said fractions being rich in catalyst, the others being poor in catalyst.

11. (original) A process as claimed in claim 10, characterized in that said catalyst-rich fractions are recycled to a desulfurization zone, and said catalyst-poor fractions are directly sent to the regeneration zone.

12. (original) A process as claimed in claim 10, characterized in that said catalyst-rich fractions are recycled to a desulfurization zone, and said catalyst-poor fractions are separated into two streams, one being recycled to a desulfurization zone, the other being sent to the regeneration zone.

13. (previously presented) A process as claimed in claim 10, characterized in that the used absorbent is temporarily stored prior to being mixed with the regeneration gas.

Claim 14 (canceled)

Claim 15 (canceled)

Claim 16 (canceled)

Claim 17 (canceled)

Claim 18 (canceled)

Claim 19 (canceled)

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Do not enter WAL

1. (canceled)

2. (currently amended) A process as claimed in claim ~~1~~ 10, characterized in that said regeneration is carried out in a filter-reactor and in that the process further comprises mixing additional regeneration gas during the regeneration-filtration stage, in the filter-reactor.

3. (currently amended) A process as claimed in claim ~~1~~ 10, characterized in that said regeneration gas comprises hydrogen sulfide and/or a hydrocarbon.

4. (currently amended) A process as claimed in claim ~~1~~ 10, characterized in that the gases from the regeneration-filtration stage are cooled.

5. (original) A process as claimed in claim 4, characterized in that the cooled gases are sent to a Claus plant.

6. (currently amended) A process as claimed in claim ~~1~~ 10, characterized in that the regenerated absorbent from the regeneration-filtration stage is mixed with a carrier gas, then sent to a storage unit.

7. (currently amended) A process as claimed in claim ~~1~~ 10, characterized in that the regenerated absorbent is mixed with a carrier gas, then sent to a desulfurization zone.

8. (currently amended) A process as claimed in claim ~~1~~ 10, characterized in that regeneration is carried out in the presence of a catalyst.

9. (original) A process as claimed in claim 8, characterized in that the catalyst used for said regeneration stage comprises copper oxide and/or cerium oxide.

10. (currently amended) A process ~~as claimed in claim 1, characterized~~ for regeneration of a used absorbent from a desulfurization zone or from the desulfurization of any gas containing sulfur oxides, said regeneration being carried out simultaneously with filtering of said absorbent in a reducing atmosphere, characterized in that it comprises carrying out partial combustion of a regeneration gas upstream from said regeneration and in that the products of said partial combustion are mixed with the used absorbent prior to the regeneration-filtration stage, and in that the used absorbent is fractionated, prior to being mixed with the regeneration gas, into at least two fractions, some of said fractions being rich in catalyst, the others being poor in catalyst.

11. (original) A process as claimed in claim 10, characterized in that said catalyst-rich fractions are recycled to a desulfurization zone, and said catalyst-poor fractions are directly sent to the regeneration zone.

12. (original) A process as claimed in claim 10, characterized in that said catalyst-rich fractions are recycled to a desulfurization zone, and said catalyst-poor fractions are separated into two streams, one being recycled to a desulfurization zone, the other being sent to the regeneration zone.

13. (currently amended) A process as claimed in claim ~~1~~ 10, characterized in that the used absorbent is temporarily stored prior to being mixed with the regeneration gas.

14. (currently amended) A device for regeneration of a used absorbent from a thermal desulfurization zone, comprising a regeneration means ~~(12)~~ working in a reducing atmosphere by contacting a regeneration gas with the used absorbent, associated with a filtration means, said regeneration means ~~(12)~~ comprising an inlet for the used absorbent, an outlet for the gases, an outlet for the regenerated absorbent, characterized in that it further comprises a means ~~(14)~~ for partial combustion of the regeneration gas and a means for mixing the regeneration gas with the used absorbent, arranged upstream from the used absorbent inlet of said regeneration means ~~(12)~~, and a means for fractionating the used absorbent, arranged upstream of the means for mixing, into at least two fractions, some of said fractions being rich in catalyst, the other being poor in catalyst.

15. (currently amended) A regeneration device as claimed in claim 14, characterized in that said regeneration means ~~(12)~~ also comprises an additional inlet ~~(16)~~ for a regeneration gas.

16. (currently amended) A regeneration device as claimed in claim 14, characterized in that it also comprises a means ~~(18)~~ for cooling the gases coming from said regeneration means ~~(12)~~, whose inlet is connected to the gas outlet.

17. (currently amended) A device as claimed in claim 16, characterized in that said cooling means ~~(18)~~ comprises an outlet ~~(19)~~ connected to the inlet of a Claus plant.

18. (currently amended) A device as claimed in claim 14, characterized in that it also comprises a filtering means ~~(1)~~ to separate the used absorbent from the effluents prior to entering said regeneration-filtration means ~~(12)~~, said filtering means ~~(1)~~ being arranged upstream from the regeneration means in relation to the direction of flow of the absorbent.

19. (currently amended) A device as claimed in claim 14, characterized in that it also comprises a means ~~(9)~~ for storage of the used absorbent, said means for storage of the used absorbent being arranged upstream from the used absorbent inlet of said regeneration means ~~(12)~~.

20. (new) A device as claimed in claim 14, characterized in that said means for fractionating the used absorbent comprises a cyclone.